



# The Stethoscope

NEWS of the COLUMBIA-PRESBYTERIAN MEDICAL CENTER

VOLUME XIV, NUMBER 8

SEPTEMBER, 1959



The above picture shows part of the Record Room and files. This room is not seen by many people, but it shows the enormous amount of paper work that has to be done in the healing of the sick.

## THE SANCTITY OF THE MEDICAL RECORD (And the Immediate Return Thereof)

The following is excerpted from a letter the mother of a young patient took the time to write to us "in good humor":

"Dear Dr. Snyder:

In the four years my daughter has been a patient in Vanderbilt Clinic, we have come to recognize or know many of your staff. We have been touched and grateful many times for their kindnesses and courtesies to us.

However . . . I have noted the following:

1. Charts are frequently misplaced when appointments are a week or less apart.
2. Many people handle the charts, thus increasing chances for human failure in what must be an already complicated system.

To illustrate:

1. On a Friday we kept an appointment in Pediatrics Cardiology. Chest x-rays made for the occasion were not available to the doctor . . . The following Monday we kept an appointment at ENT —chart not there—we personally tracked it to the fourth floor (still there since Friday waiting for the x-rays?)
2. On admission for heart surgery, the process was delayed because of a lost chart . . . found later.

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## In Memoriam

DR. GEORGE FRANCIS CAHILL

Dr. George Francis Cahill, internationally known urologist and one of the original members of the J. Bentley Squier Urological Clinic, died on Friday night, July 24, at the Harkness Pavilion. His age was 69.

Dr. Cahill had served as Director of the Squier Clinic and as Professor of Urology from 1939 to 1955, during which time he was President of the Medical Board of



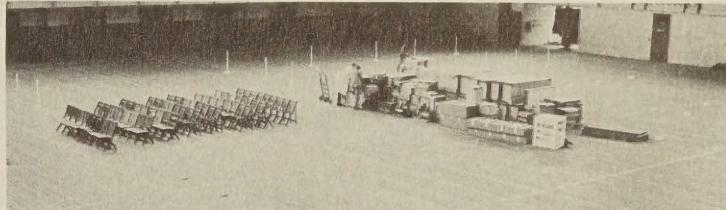
Dr. Cahill

The Presbyterian Hospital for a three year period. Upon his retirement he became Professor Emeritus and Consultant in Urology, positions which he held until his death.

Dr. Cahill had a long and distinguished career in the medical field. Many important medical discoveries concerning the functioning of the adrenal glands and new methods for treatment involving these glands were made at the Clinic under his direction. In 1957 Dr. Cahill was the recipient of the distinguished Barger Medal of the American Association of Genitourinary Surgeons; in 1948, the Trimble Medal of the

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## FROM THIS . . . . . TO THIS IN 47 MINUTES



It took just forty-seven minutes for C-P physicians and nurses to change a cavernous drill hall into a ready-for-surgery hospital. That is the time the doctors and nurses of Columbia-Presbyterian, working fast and efficiently, set on June 16. The scene was the main drill hall in the Armory at 168th Street and Fort Washington Ave.

Under the watchful eye of Dr. Joseph E. Snyder, assistant vice president and director of the Vanderbilt Clinic, and Miss Margaret Reid, R.N., senior supervisor, VC, a huge pile of boxes, all with numbers and code signals, was opened by the staff. A field hospital capable of handling more than 200 patients an hour began to take shape. Identification tags, bandages, tables, surgical tables, stretchers—all the necessary paraphernalia to make a complete hospital were put into use.

Volunteers were splinted and others bandaged. Stretchers and ambulatory patients were processed at a receiving area and tagged with their names and injury. A surgical section was running top speed, complete with surgical lights and x-ray machines powered by their own generators. Separate power was provided for general illumination and for operating smaller equipment.

Where possible, the materials were packed in medium-sized boxes so that they could be lifted conveniently.

The participants were first briefed by Dr. Snyder and Dr. James M. Hershey, Hospital Consultant, N. Y. State Department of Health Office of Civil Defense. Forty-seven minutes after the

briefing the whole unit was ready for any emergency.

Dr. Snyder worked closely with Dr. Hershey in planning the hospital unit for use by Civil Defense teams throughout the state. The units are strategically placed so that they may be dispatched at a moment's notice. The units were purchased by the New York Civil Defense Office at a cost of \$35,000 each.



MR. BINKERT AGAIN HONORED

Alvin J. Binkert, Executive Vice President of The Presbyterian Hospital, has been named Secretary of the Hospital Association of New York State, of which he is a Trustee. In addition, Mr. Binkert has been appointed to the Board of Directors of Associated Hospital Service of New York, Inc.

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## REPORTERS

**Accounting**—Irene V. Gresch. **Babies Hospital**—Loretto Molzahn. **Blood Bank**—Mrs. Ruth Bogan. **Building and Grounds**—Margaret Muccilli. **Chaplain**—Robert B. Reeves, Jr. **DOS**—Mrs. Florence Moore. **Elevators**—John J. Callahan. **Eye Institute**—Helen Meade. **Housekeeping**—Rosina Wallace. **Laundry**—Mary Minsky. **Library**—Mrs. Selma Gale. **Mail & Messenger**—John J. Campbell. **Nursing Service**—Jean MacDermid, R.N.; Mrs. Kathryn Petruschek, P.N.; Mrs. Grace Balke (Auxiliary Nursing). **Occupational Therapy**—Nancy Gold. **Protective**—Edwin H. Behlmer. **Purchasing**—Gerard Walker. **Record**—Marion R. Trilling. **Social Service**—Barbara Mintz (N.I.), Adelaide Vrooman (B.H.). **Telephone**—Mrs. Ann Traino. **Vanderbilt Clinic**—Barbara Little. **Volunteer**—Laura Vossler.

PHOTO CREDITS: Record Room — Sam Ross  
Family Volunteering — Mrs. Elizabeth Wilcox  
Mobile Hospital — Lou Koster

# STETHOSPIA

Since we last went to press, five marriages have taken place in The Pauline A. Hartford Memorial Chapel:

On June 26, CAROLYN E. SWIFT, School of Nursing, '60, became the bride of WILLIAM FLEMING, College of Physicians and Surgeons, '61. . . . CAROL ANN TOMITA, staff nurse, was married to Stanley Tanakaya, an electrical engineer, on July 25. The couple will live in Syracuse. . . . The following day the Chapel was the scene of the marriage of MARGARET LITTLE INGRAHAM, staff nurse, and DR. PETER GOLDMAN, resident, Medical Service. . . . BARBARA DE VECCHI, head nurse, was married to William A. Klauber on August 22; and later that afternoon, BARBARA POAG, staff physical therapist, was married to WILLIAM DANTZLER, College of Physicians and Surgeons, '61.

In addition, we have received word of marriages during the summer from several departments: The Accounting Department reports the marriage of ADELINE TOSSONE, Insurance Unit, to James Krockel, on August 1. . . . MRS. CHARLOTTE CAMPBELL, formerly a telephone operator here, on August 8 became the bride of SGT. JOHN CLINTON ("Jack") CHISHOLM, on staff with the Protective Department for the past 14 years and ex-Marine and member of the Order of the Purple Heart. . . . RAFAEL CARRION, Engineering Department, and GLORIA MONSERRATE, Record Room, were married June 20. Friends from the Medical Center were among those participating in the ceremony, with SGT. HARRY O'GRADY, Protective Department, god-

father of the bridegroom, serving as best man. . . . From the X-Ray Department comes word that on July 11 LYDIA NAVARRO, assistant office manager in Harkness X-Ray, was married to HARRY HARVEY, supervisor, 3rd floor Presbyterian X-Ray. Following a honeymoon in Puerto Rico, the couple returned to reside in Teaneck, N. J. . . . MARGARET BEST, who was a private duty nurse in Harkness Pavilion for the past eight years, was married August 1 to Edward J. Smith in Cleveland. Mrs. Smith will teach public health at the St. Luke's Hospital there. . . . The marriages of three members of the Social Service Department were reported to us: CLAIRE JOHNSON, social service supervisor, Service of Psychiatry, became the bride of DR. STEPHEN L. BENNETT, resident in psychiatry, on July 25. . . . On the same day CATHERINE ASCHERL, social worker, Dermatology Service, married George Osterman. The Ostermans went on a honeymoon trip by car to various parts of the U. S. . . . SUZANNE WILLIAMS resigned her position as social worker, Surgical Service, to marry Donald L. Birch, August 8 in Philadelphia. Mr. and Mrs. Birch will make their home in Montreal, Canada, where he is an engineer. . . . From the Telephone Room comes word that JANE FLANAGAN, supervisor, left the Medical Center in June to become Mrs. Timothy Monahan.

That's a total of 14 marriages that have been reported to us from various parts of the Medical Center over the past two months. As for anniversaries, Mr. & Mrs. Frank Scandura (she is EMMA SCANDURA, of the Accounting Department) celebrated 21 years of marriage in June.

News has come from the School of Dental and Oral Surgery that BARBARA SCHELLATI, dental assistant in the orthodontic division, has become engaged to Patrick Fazio, Jr. They have set the wedding date for April 24, next year. . . . Announcement has been made of the engagement of Joan Wohlman, student at Pratt Institute, to MAURICE MURAD, Accounting Department employee and a City College student.

Congratulations are still being received by MARTIN RYAN, Maintenance

and Construction Department. Mr. and Mrs. Ryan became parents of their first son, Timothy Martin, on July 26. . . . Mr. and Mrs. Thomas P. Delaney (she is NELL-ELIZABETH DELANEY) welcomed their first baby, Thomas Patrick, born June 18. Mrs. Delaney is on leave of absence from her job as technician in the Basal Metabolism Laboratory.

Three employees who retired during the past month had among them served a total of 47 years in the Medical Center: FREDERICK DE PELLEGRINI, kitchen attendant, Food Service, had been employed here for 17 years. . . . GIACOMO SCARPINATO, mason, Maintenance and Construction Department, had served for 10 years by time of his retirement. . . . MRS. CATHERINE L. MULHALL, linen sorter, Laundry, retired following 15 years on the job.

Many departments welcomed new employees and said farewell to others: MRS. FELICE CELIKYOL joined the staff of the Occupational Therapy Department. Mrs. Celikyol recently completed studies at the Occupational Therapy School of the University of Southern California. . . . The Blood Bank reports the arrival of PEGGY DOWLING and THOMAS AROUNI, technicians. Mr. Arouni, assigned to evening duty, replaces ROCCO JAMES, who left to resume his teaching career. MRS. MARILYN MARS joined the Blood Bank staff as nurse-technician, taking over for JANET NOXON, who left in July to take a job in California. . . . The Accounting Department has welcomed ADRIANNE PEREZ, MARY GLACKIN, MARY O'LEARY and CONSTANCE G. MARKOWITZ. . . . The Nursing Service has bid farewell to two administrative assistants, MRS. MARILYN HAMEL and MRS. LILA GREGG. Mrs. Hamel retired to private life at the end of last month. Mrs. Gregg and her husband, DR. MICHAEL B. GREGG, senior assistant resident, Medical Service, departed for Hamilton, Mont., where Dr. Gregg will devote two years to virology research at the Rocky Mountain Laboratory on assignment with the National Institutes of Health. Following a leave of absence for study, CYRILLA PAGE returned to the Nursing Service to resume her duties as administrative assistant.

The Nursing Service has announced the appointment of MRS. BARBARA DE VECCHI KLAUBER as administrative assistant. Mrs. Klauber, formerly a Presbyterian head nurse, will begin in her new post this month. . . . MRS. ALICE BOHAN, last night resigned her position as secretary in the Vanderbilt Clinic Administration Office, following four years at the Medical Center. . . . During the summer, the telephone room staff said goodbye to two operators, MRS. GERTRUDE EARL, who transferred to the Otolaryngology admitting unit, and MRS. MARY ANNE GANNON, who moved to Monroe, N. Y., with her husband and two young daughters. . . . The Public Interest bade farewell to ROSE MARIE KIRKWOOD, secretary in the department for nearly three years. She was, as well, an active volunteer, serving as a Red Cross Nurse's Aide in the Vanderbilt Clinic Emergency Unit. Miss Kirkwood left the Medical Center to take a job in Long Beach, Calif., as secretary-receptionist with a group of orthodontists, two of whom are graduates of the School of Dental and Oral Surgery.

Vacations home-to-visit-the-family this summer took KIRSTEN BAK, Blood Bank technician, to Copenhagen, Denmark, and MRS. MARY TANSEY, Laundry, to the County Mayo in Ireland. It was Mrs. Tansey's first visit home in twenty years.

We have had word of new appointments received by four doctors formerly with the Medical Center: DR. RICHARD J. BING has become professor of medicine at Wayne University. Dr. Bing, son-in-law of former director of the Surgical Service, Dr. Allen O. Whipple, was an intern here in 1937-1938. . . . DR. ALBERT LEVY, formerly assistant attending anesthesiologist, has begun a residency in obstetrics and gynecology at Mt. Sinai Hospital. . . . Leaving Babies Hospital staff as assistant attending pediatrician, DR. SAUL BLATMAN took over duties as chief of pediatrics at the National Jewish Hospital, in Denver, Colo., at the beginning of July. . . . DR. ROBERT J. WEISS left the Service and Department of Psychiatry on July 1 to become professor and chairman of the department of psychiatry at the Dartmouth Medical School, in Hanover, N. H.

## In Memoriam

### DR. GEORGE DRAPER

Dr. George Draper, former Associate Professor of Clinical Medicine of the College of Physicians and Surgeons, and former Associate Attending Physician at Presbyterian Hospital, died July 1 in New York City.

A specialist in internal medicine, Dr. Draper spent many years on research in scientific constitutional medicine, studying constitutional susceptibility to poliomyelitis, peptic ulcer, gall bladder ailments, diabetes, rheumatic fever and other disorders.

A Harvard graduate, 1903, Dr. Draper received his medical degree from the College of Physicians and Surgeons in 1906. He served his internship at Presbyterian Hospital and began practice in 1912.

Surviving are his widow, Mrs. Elizabeth Draper; three children, George T., Mrs. Malcolm Bigelow and Miss Penelope Draper; two sisters and six grandchildren.

### JAMES E. MONAHAN

James E. (Jimmy) Monahan, Special Officer, Protective Department, died of a heart attack while on duty at the Medical Center June 23.



During 15 years of service, his cheerfulness and unfailing courtesy won him friends throughout the Medical Center. He is survived by his widow and a daughter.

### MRS. REBECCA MELICOW

Mrs. Rebecca Melicow, mother of Dr. M. M. Melicow, of the Department and Service of Urology, died in New York on July 31. Born in Lithuania, she leaves, in addition to Dr. Melicow, four daughters.

### "DID YOU KNOW?"

Did you know that a harmless mistake led a Medical Center doctor towards the perfecting of a successful synthetic replacement for diseased arteries?

During research the doctor had mistakenly sewn a suture through an animal's heart. Months later he found the suture nesting within a casting of tissue. The result of this observation: arterial grafts made from synthetic fibers such as nylon, vinyon and dacron.

## Doings of Doctors . . .

The Paralyzed Veterans of America, Inc., presented awards to two Columbia-Presbyterian Medical Center physicians, Dr. James B. Campbell and Dr. C. Andrew Bassett, for their work in the field of paraplegia. The awards were made at the 13th annual convention dinner of the PVA on July 22 at the Hotel New Yorker. The two doctors share the 1959 awards with Mr. Harry A. Schweikert, Jr., PVA president, who was honored for his outstanding leadership in bringing the group's membership to an all-time high.

Dr. Campbell and Dr. Bassett have been studying the regenerative potential of the severed spinal cord in animals, with the aim of eventually restoring function to the arms and legs of human beings paralyzed by damage to the spinal cord. These investigators have developed a technique for growing viable nerve fibers across the gap resulting from complete severance of the spinal cord. Although this is an important initial step in a broad research project, they point out that more research will be necessary before undertaking clinical trials.

This research has been financed by the Department of the Army, Office of the Surgeon General; National Institutes of Health; the Playtex Park Research Institute; and the United Cerebral Palsy Research and Educational Foundation, Inc.

Dr. Campbell is assistant professor of neurosurgery, and Dr. Bassett is assistant professor of orthopedic surgery, both at the College of Physicians and Surgeons.

The Ninth International Congress of Pediatrics in Montreal, Canada, during the week of July 19 was attended by many members of the staff, with more than a dozen presenting papers, or serving as chairmen of panel discussions.

## From the Mail Bag . . .

"My wife has just concluded a stay in the Harkness Pavilion. Our experience with the hospital was so favorable that I cannot resist writing you this note of appreciation. We have been in other hospitals which

maintained a high level of scientific attainment and some which showed great interest in the patient as a human being, but we never met with the combined science and humanity which we found in your people. We noticed it in all personnel from doctors through nurses and dietitians to the tray carriers and service women. It was a heart-warming experience."

☆ ☆ ☆

"I wish to take this opportunity of expressing my appreciation of the helpful, interested, cooperative way in which your Account Representative has handled this matter. Rather than accept the aid application disapproval as final, he took the trouble to explain the avenues by which, if I wished, I might request reconsideration of the disapproval. The soundness of his judgment is shown, of course, by the fact that the disapproval was subsequently reversed. He was patient and lucid in explaining the details of the lengthy, itemized hospital bill. Our contacts with him have really been a pleasure."

☆ ☆ ☆

"My child was not only treated nicely but each child on the 4th floor ophthalmic ward was treated with plenty of T.L.C. which they so greatly deserve."

☆ ☆ ☆

"The doctors and nurses were wonderful to my husband. Better care he couldn't have had even if he could have afforded private nurses and doctors."

## Mrs. H. M. Deleuran Returns From Tour

Mrs. Harriet Mantel Deleuran, Assistant Professor of Nursing, Faculty of Medicine, Columbia University, on sabbatical leave during the spring semester spent her leave studying and observing in the field of mental health, both here and abroad.

After spending some one and a half months at the New York State Psychiatric Institute, the National Institute for Mental Health, Bethesda, Md., and other mental health units in this area, Mrs. Deleuran left in April for a three-and-a-half-months tour of Europe where she visited leading institutions and agencies concerned with the care of psychiatric patients. Among these were the Tavistock Clinic and the special care units at both Belmont and Cassel Hospitals, London; the family care plan for the mentally ill at Ghent, Belgium; Amsterdam's city emergency care unit; selected programs in Helsinki, Stockholm, and Oslo; a mental health meeting in Copenhagen and observations at psychiatric hospitals in Munich and Geneva. She observed the basic and postgraduate programs in nursing education at the Universities of Glasgow, Edinburgh, Aarhus (Denmark), and Heidelberg.

CONGRATULATIONS

... to the eighty-four captains who helped in the Greater New York Fund drive. To show the workers and contributors just how the drive made out, here are a few figures that might be of interest.

	1958	1959
Percentage of employees contributing . . .	76.5	78.0
Amount collected . . .	\$6,323.51	\$7,818.35
Dollar increase over 1958 . . .	\$1,494.84	
Percentage increase over 1958 . . .	23.6	

All who participated should feel a glow of pride.

## First Bone Bank Still Pioneering, Seeks New Methods

An operation is in progress in Room K. The operating room nurse carefully grasps a plastic envelope with forceps and withdraws it from the disinfectant in which it has been immersed. With sterile scissors she gently snips off one end. Inside the envelope—actually a nest of three plastic bags separately sealed—is a strip of bone from the tibia, the shin bone, of a human donor. An orthopedic surgeon takes the piece of bone, about 4½" long, ¾" wide, and ¼" thick, from its nest of plastic. He attaches it to the patient's right femur, or thigh bone, across the ragged ends of an unhealed fracture. During the first stages of the operation the area has been exposed and prepared to receive the graft. The strip of bone has been on deposit in the Bone Bank for two-and-a-half months. This morning it was selected to meet the surgeon's specifications and withdrawn for use as a bone graft.

The patient in Room K, a 47-year-old man, came to the hospital a semi-invalid, unable to work, in almost constant pain from his leg, first broken in an automobile accident 18 months before. The bone healed, but before it became strong, he broke it a second time seven months later while playing softball with his two young sons and their friends. Since then, repeated attempts to effect healing have failed. The piece of bone being grafted into his leg will serve in at least three important ways: as an internal splint for the broken bone, a stimulus to growth of new bone, and as a model to guide and shape the repairs. The chances are excellent that the bone shaft will now heal solidly and that the patient will be able to walk again, return to work, and eventually, even play softball.

That is the story of what a piece of bone from the Bone Bank would mean in but one situation, to one patient.

### Grafts Used for One of Four Patients

Last year some 400 patients were treated with grafts from the Medical Center's Bone Bank. Nearly 1,200 bone pieces were used. The number of operations making use of banked bone has risen steadily each year as the usefulness of this material has been demonstrated and extended. In 1958 bone was drawn from the Bone Bank for one of every four patients who were operated on by members of the Orthopedic Surgery Service.

### First Bone Bank Begun Here

The history of bone grafting began in the 18th century; the first successful grafting of bone from one person to another was accomplished in the latter part of the

19th century; the practical use of preserved bone—banked bone—began just 14 years ago. The first bone bank was established at the New York Orthopedic Dispensary and Hospital in 1945, the year in which that hospital became a part of the Columbia-Presbyterian Medical Center. At the suggestion of Dr. Alan DeForest Smith, then director of the Orthopedic Hospital, and Dr. William H. von Lackum, associate attending orthopedic surgeon, experimental work was undertaken by Dr. Leonard F. Bush, at that time an Annie C. Kane fellow and now in practice in Danville, Pa., and Dr. C. Zent Garber, orthopedic pathologist. Drs. Bush and Garber developed techniques for preservation of bone by deep-freeze refrigeration and organized the Bone Bank.

### Bone Grafts Needed for Many Purposes

What are the uses of bone grafts? The orthopedic surgeon employs grafts not only to promote union in fractures that have not healed, as has been noted, but to fill cavities in bones from which cysts or tumors have been removed; to bridge and fuse joints that have been weakened by stress or destroyed by disease; to strengthen and straighten the bones of children born with an inability to form a normal skeleton or with deformities, such as scoliosis, curvature of the spine.

### Three Kinds of Bone Tried as Grafts

In attempting to repair bone, the material most logically used is bone itself. Bone grafts of three different kinds have been tried: bone removed from the patient's own skeleton (termed an autogenous graft), bone taken from another human being (homogenous graft), and bone from animals (heterogenous graft).

Autogenous grafts, first to be tried, are today still the best grafting material. But removing sufficient bone for this use may present serious disadvantages because an additional operative procedure is usually necessary. In children often there is simply not enough bone to be taken for use as a graft. The use of heterogenous grafts, such as beef bone, presents other problems. If not pre-treated, the heterogenous bone can produce a serious inflammatory reaction in the patient, which may result in the graft being rejected. If the bone is processed to remove the organic, or reaction-producing, portion, the graft often fails to serve as a strong splint and does not effectively stimulate new bone growth.

Homogenous bone grafts—bone from other humans—are at the present time the most widely-used successful grafting material.

### Remodelling, One Key to Success

What are the functions of a successful bone graft? Early experimenters concluded that a bone

*Continued on page four*

# First Bone Bank Still Pioneering

Continued from page three

graft survived intact when it fused with the bone on which it was grafted. Modern techniques of study have revealed that this is not the fate of most grafts. Instead, the graft is invaded and replaced by new bone cells growing into it or, if the graft material cannot be absorbed, it may be encased in new growth. The newest evidence seems to indicate that the cells of the graft do not live and grow as such, with the possible exception of the survival of a small proportion of cells in the case of certain autogenous grafts.

But the assumption cannot be made that because the bone graft is dead, it exerts no influence. It serves as a trellis for new bone growth, as a space-occupier to prevent encroachment of neighboring soft tissues, and as an internal

splint when necessary. Synthetic materials also perform these functions, but they are not usually absorbed or replaced. Instead, they remain in the body, a source of chronic irritation or of acute inflammation if chemical changes later occur in the material. They may cause a structural change so that normal stresses could result in fracture. A satisfactory bone graft, on the other hand, undergoes replacement and remodelling in the body and is slowly reshaped to meet structural needs. Bone used as grafting material provides a biological model, a pattern or organization for new bone cells to follow in making repairs. The invasion and replacement of a graft by new bone cells, vividly termed creeping substitution, takes place most successfully when the graft

is most like the bone of the recipient. Thus, autogenous and fresh or frozen homogenous grafts are incorporated at a faster rate than heterogenous or homogenous bone that has been preserved or sterilized in a manner that severely alters its physical-chemical characteristics.

## Research Seeks to Solve Growth Puzzle

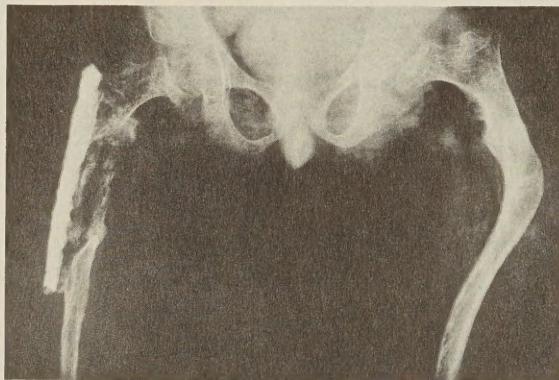
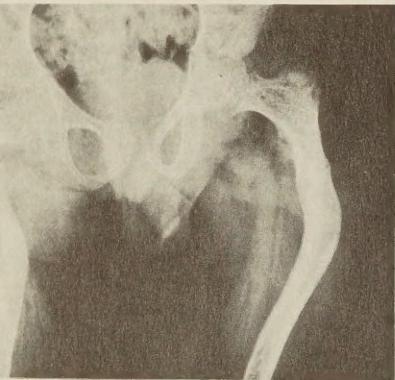
The observed differences between successful and inferior grafting materials give rise to speculation that a successful bone graft serves another biological function. There is some evidence that such a graft "induces" certain non-bony tissue cells in contact with it to form bone or perhaps that it exerts a chemical influence, stimulating bone repair.

Research aimed at finding answers to still unsolved riddles of bone growth and repair is going on in laboratories at the Medical

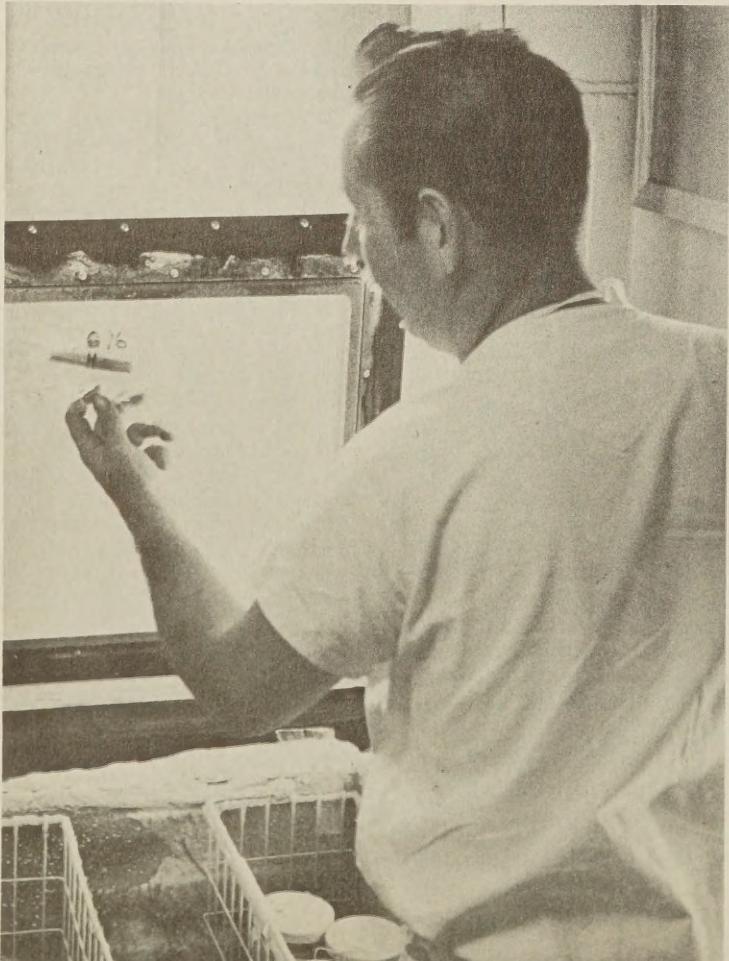
source of supply had to be tapped to keep up with the continuing increase in the number of surgical operations making use of bone grafts.

Until 1954 the bone on deposit in the Bank was obtained from operating room specimens, chiefly amputated limbs and ribs removed during chest surgery. In that year, Dr. C. Andrew L. Bassett, assistant attending orthopedic surgeon, organized a program to bank homogenous bone removed at autopsy, utilizing techniques devised when he was a member of the Navy's Tissue Bank research team at the Naval Medical Research Institute.

Bone for grafts is obtained from suitable donors upon written consent of the deceased patient's nearest relative. This is done in strict conformity with autopsy procedures and in no way disfigures the body. The most useful bone is that



IN THE BONE BANK John Finnerty, technician, inspects one of the plastic-packed bone grafts on deposit in one of the Bank's deep-freezer vaults.



WHEN ARTHUR C. came to the Medical Center in 1953, he was 8 years old, victim of osteogenesis imperfecta, a disease he had been born with. The disease is characterized by an inability to form bones strong enough to support the body's weight without breaking under normal stresses. Although Arthur had never walked, he already had suffered 27 major fractures of his arms and legs.

(Left) The x-ray taken on Arthur's first visit to the Hospital in June, 1953, shows the meager and misshapen bones of his thighs. At that time orthopedic surgeons operated on his left leg, straightened the bone and applied a graft of banked bone to strengthen it.

(Center) Four-and-one-half months later, the edges of the bone appear moth-eaten, a sign that the graft is being incorporated, that the process called creeping substitution is taking place.

(Right) This x-ray, taken 16 months after the bone was grafted on the left thigh bone and 10 months following grafting in the right thigh, shows both bone shafts straightened. The bone grafted in the left leg, now a small wedge projecting outward from the top of the thigh bone, has been almost completely absorbed. The graft in the right leg has been similarly reduced by creeping substitution to a thin strip.

Less than a year after the first grafting procedure, both thigh bones were sufficiently strengthened by the grafts to allow Arthur to begin walking with the aid of braces. He has had seven major grafting operations in all. Now 15 years old, he is a good swimmer and an able amateur mechanic specializing in hot rods.

Center and elsewhere. Discovery of the specific components of bone grafts that accelerate repair or induce other cells to become bone cells could lead to changes in methods of preserving grafts—or to a new grafting material.

## New Bone-Graft Source Tapped for Bank

During the Bone Bank's early years of operation at the Medical Center, the rate of success of fresh autogenous and homogenous bone grafts was shown to be almost equaled by frozen homogenous bone banked according to the methods developed by Drs. Bush and Garber. Demand for grafts soon began exceeding supply. A new

from the iliac (hip) crests, ribs (alternate), and strips from the shafts of the tibia and fibula (lower leg bones) of males.

During the process of removal, even when aseptic surgical technique is used, the grafts are found to pick up airborne bacteria, most usually staphylococci. Since freezing preserves both bone and bacteria, these grafts must be sterilized.

## Frozen Grafts Make Round Trip to M.I.T.

A piece of homogenous bone, however, that is changed drastically by sterilizing, for example, with chemicals or by boiling, may

*Continued on page six*

## Family Volunteering

These pictures show only a few of the members of the same family who are volunteers at P. H. Volunteering is a hobby with many families. "It's the thing to do", to help the hospital where a relative or a friend has been a patient or a volunteer.

(1) Mrs. Ralph H. Boots, member of the Women's Auxiliary J.P.H., and her sister, Mrs. Hope Kingsley, member of the Board of Women Managers of the Babies' Hospital, are volunteers not only in the Auxiliary Thrift Shop, but give one day a week to the Patients Service Corps of Vanderbilt Clinic.

(2) Mrs. Damasky is a Volunteer Clinic Aide two days a week, and her husband, George, is a volunteer Monday evenings on the control desk in the Recovery Room.

(3) Mrs. Freda Korper has been a volunteer in Sterile Supply since 1953. Her granddaughter, Judy Boros, a George Washington High-school student, was a volunteer during the summer in Pharmacy.

(4) Mrs. Judith Burks, a volunteer in a Bacteriology Lab. is here pictured with her husband, William, a 4th year P. & S. student.

(5) Linda Poppin, a candy striper volunteer for two years with various assignments in Babies' Hospital and the Milbank Library, is shown in the library with her mother, a former volunteer, and now a hospital staff member.

(6) Miss Yvonne Trebilcoch, R.N. in Squier Urology, is not the only member working at P.H. Her mother is a Volunteer Nursing Aide on P.H. 5 one day a week.

(7) Mrs. Beretia Rosenberg, a volunteer of fourteen years, last year introduced her daughter Rita to Volunteer work. Rita is in the Milbank Library Monday evenings, after a busy day in her office.

(8) Mrs. Mary Andrews and Mrs. E. Sarantos, sisters, have been volunteers since 1956. They are two of the many Greek ladies who volunteer at the Medical Center.

(9) Francine Mohink persuaded her father to volunteer. They are both assigned to Emergency Admitting on different evenings.

(10) Mary Case, a Candy Striper during the summer, was interested in Volunteer Service through her mother, Mrs. Helen Case, a secretary in the college.



## Bone Bank

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not cause infection but neither will it serve as an effective graft. With colleagues at the Massachusetts Institute of Technology High Voltage Research Laboratory, Dr. Bassett worked out a procedure for sterilizing autopsy bone grafts by irradiation with the 3-million volt Van de Graaff cathode-ray generator. The method of irradiation proved effectively to sterilize the bone pieces without damaging their ability to function as grafts.

The grafts, individually packaged in plastic, are first frozen, then packed in dry ice and shipped air express to M.I.T. During irradiation the grafts remain frozen, the packets passing on a refrigerated conveyor belt under the beam of the generator for a 10-second exposure on each side. Still frozen, they are re-packed in dry ice and returned to the Bone Bank. A shipment generally completes its round-trip within 48 hours. As soon as the lot is proved free of bacteria, the grafts on deposit are cleared to be withdrawn for use. Actually, the Surgical Bacteriology Department tests each lot both before and after irradiation, and there are other safety check-points in the banking procedures, as well.

Currently, about 90 per cent of the bone on deposit in the Bank is cathode-ray sterilized bone obtained at autopsy. The remaining grafts are taken from operating room specimens. Although the Bank's supply is at present fairly adequate, at times the supply dwindles and grafts must be issued on priority basis according to patient need. Most of the demand for grafts is being met, but only because of the diligent efforts of the Bank's staff to obtain and carefully process suitable bone whenever it is available.

### Bone Banking Is Team Operation

The Orthopedic Surgery Service, directed by Dr. Frank E. Stinchfield, operates the Bone Bank, but bone also may be drawn by other surgical services requiring graft material.

Dr. Bassett is director of the Bone Bank. Professional responsibilities in the Bank are delegated on a bimonthly rotational basis to an Annie C. Kane fellow and an assistant resident, who must be on call at all times to decide on the acceptability of bone donations, collect bone at autopsy, and prepare grafts for banking. The technician in charge of the Bank, Mr. John Finnerty, is responsible for maintaining its records of deposits and withdrawals, its supplies and equipment, as well as arranging for procurement of grafts and assisting in their preparation. In 1955 the various operations of banking—graft preparation, storage, and record keeping—were brought together in the room now occupied by the Bank on the 18th floor of Presbyterian Hospital. The Bank's vaults are two deep-freeze

## Medical Record

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3. Clinic appointment—chart missing—eventually found on secretary's desk where it was awaiting her return from vacation to write a letter.

These incidents which I have observed have caused your staff and patients hours in waiting, interruption, disruption, duplication, etc. I feel that, given encouragement, assurance and follow-through, your over-all clerical staff could detect the weak spots in the system and devise ways to strengthen them. (My method for months was to call the day of appointment and alert your very cooperative staff to begin the search!) Since the chart is a vital link between patient and doctor, I believe its careful handling to be of interest to you. I apologize if my letter seems presumptuous. It was not meant to be."

\* \* \*

First, our sincere thanks to Mrs. G. J. for her tongue-in-cheek letter. Fortunately it was written in annoyance and not in grief. The lack of immediate availability of a record could mean the difference between life and death for a patient. If more of us recognized this, there would surely be less delay in handling the records and returning them to our Record Department. The record is frequently the only link between the doctor who is seeing the patient now, and those who have treated or tested the patient previously and/or in other departments. In an emergency situation this missing link can spell failure instead of success.

Sometimes in the routine of our days we forget that first of all our job is people—getting them well and keeping them well—and that everything else—personal convenience, a more interesting task—must be secondary.

In our clinics a tremendous part of the patients' waiting time is the result of delay in locating records which have been waylaid somewhere along the line. Since many of these patients are taking time off from jobs, or have left young children in the care of others, their time is valuable. And certainly the time wasted needlessly in tracking down a misplaced record could be spent more constructively taking care of other matters.

For fulfillment of its mammoth responsibility, the Record Department relies on the cooperation of each handler, once a record is signed out. The sick patient, the busy doctor, the anxious mother

chests: a standard model of the type used in homes for food storage, operating at minus 35° Fahrenheit, and a special unit maintained at minus 70°. To ensure safety, temperatures are monitored automatically and any dangerous rise sets off an alarm.

... all are dependent on this teamwork.

The essentials necessary for trouble-free circulation of these vital documents are few and, if followed faithfully, the Record Department might well become a Utopia where any record could be immediately found at any time.

1. ALL records returned promptly.
2. NO record ever to leave hospital.
3. Record Department kept informed of whereabouts of every record out.
4. Record detained for any valid reason must be available to Record personnel at moment's notice.

Perhaps a closer look at the way the Record Department is set up and functions would be of value to everyone concerned with the efficient handling of records.

Certainly this revealing letter reaffirms the critical importance of our Record Department and the service done for our patients 24 hours a day. Ours is one of the most effective records systems in existence. This system—widely accepted today as the most nearly ideal—has been adopted by hospitals. Under this unit system all medical information about each patient is combined chronologically into one record. A complete cross-indexing system contains patient identification information enabling any record to be found on call with a minimum of effort.

Altogether there are over one and a half million medical records in the hospital, about 710,000 of which are on active file on the second floor of Vanderbilt Clinic. The rest are in storage, more or less remote, depending upon the activity of the records.

In 1916 when the unit system was initiated, Presbyterian became the first hospital to put it into effect. When better filing facilities were needed, we devised functional storage shelves (now being commercially manufactured and used throughout the country).

Another first is our terminal digit filing system which speeds up both filing and locating records and also allows the shelves to stay full all the time.

For the study of particular diseases, records are requisitioned through the disease index, in which only completed records are entered.

The movement of records never stops. Eighty-one staff members are divided into three shifts. Under the direction of Chief Record Librarian Dorothy Kurtz and Supervisor Frances McNamara, each staff group is responsible for a certain phase of the work during its shift.

Chief Circulation Clerk Lillian Penka and Assistant Ruth Kane control the circulation of records. Six times daily the five messengers deliver and collect records throughout the hospital. When they return without a needed record, the control desk goes into action tracing the missing folder . . . missing in

most cases due to thoughtlessness.

Ten telephones are located at the file stations, and clerks handle approximately 1,000 calls during a 24-hour period, plus about 5,000 written requisitions, in addition to filing approximately 5,000 records. Each day between 1,200 and 1,500 loose sheets and laboratory reports with new information are added to records.

Winding up the day throughout the hospital causes a heavy work load to greet the evening shift. Between 4:00 P.M. and 6:30 P.M. Chief Clerk Mary Waltke and the staff receive thousands of records pouring in from conveyors, and the telephones constantly ring with calls for records on patients coming in during these busiest admitting hours. The midnight shift is as busy getting records out for use during the day as the evening shift is in putting them back. The biggest problem Chief Clerk Edna Barlow has on this shift is not being able to contact anyone when searching for a missing record.

A lot of experience is behind the smooth organization of the Record Department. There are seven 25-Year Club members here, led by Miss Helen Troester, Chief Clerk in charge of Diagnostic Index, who has served the hospital for 35 years. Miss Helen Hannon has been an employee since 1929, as have Miss Kurtz, Mrs. McNamara, and Mrs. Penka—each with 30 years experience. Miss Barlow and Miss Johanna Nolan each marked their 25th year in 1959.

### Dr. George Francis Cahill

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Maryland Medical and Chirurgical Society; and in 1947 was winner of the Gold Medal of the American Medical Association for the best scientific exhibit at the 100th anniversary meeting at Atlantic City. He had been president of the American Urological Association, the American Association of Genitourinary Surgeons, the American Board of Urology, and the International Society for Urology. He was awarded an honorary degree of Doctor of Medical Science from Columbia University in 1956.

Dr. Cahill was born in New Haven, Conn., on January 1, 1890 and graduated from the Yale Medical School in 1911, at the age of 21. He trained at Bellevue Hospital and the New York Post-Graduate Medical School, and was an attending surgeon on the staff of Bellevue Hospital. During World War I he rose to become commanding officer of Base Hospital 119 of the A.E.F. in France, after serving on surgical teams attached to the American and French armies.

Surviving are his wife, Mrs. Eva Cahill; two daughters, Mrs. H. Thomas McGrath and Mrs. Gordon Page Guthrie; and one son, Dr. George F. Cahill, Jr., who graduated from the College of Physicians and Surgeons in 1953 and is now a member of the medical staff of the Peter Bent Brigham Hospital and the Harvard Medical School. Dr. Cahill also had twelve grandchildren.

Memorial services for Dr. Cahill will be held on Thursday, September 17, at 5:00 P.M., in The Pauline A. Hartford Memorial Chapel.